

Form PTO-1449 (modified)

Atty. Docket No.  
UTSL:058US/MTGSerial No.  
09/707,435

List of Patents and Publications for Applicant's

Applicant  
Debra D. Wawro *et al.*

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date:  
November 6, 2000Group:  
2817U.S. Patent Documents  
See Page 1Foreign Patent Documents  
See Page 1Other Art  
See Page 1

## U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
<input checked="" type="checkbox"/>	A1	5,216,680	6/1/93	Magnusson <i>et al.</i>	372	20	7/11/91
<input checked="" type="checkbox"/>	A2	5,598,300	1/28/97	Magnusson <i>et al.</i>	359	566	6/5/95

## Foreign Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No

## Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
<input checked="" type="checkbox"/>	C1	Abel, <i>et al.</i> , "Fiber-optic evanescent wave biosensor for the detection of oligonucleotides," <i>Analytical Chemistry</i> , 68:2905-2912, 1996. /
<input type="checkbox"/>	C2	Avrutsky, <i>et al.</i> , "Interference phenomena in waveguides with two corrugated boundaries," <i>Journal of Modern Optics</i> , 36:1303-1320, 1989 /
<input type="checkbox"/>	C3	Bolin, <i>et al.</i> , "Refractive index of some mammalian tissues using a fiber optic cladding method," <i>Applied Optics</i> , 28:2297-2303, 1989 /
<input type="checkbox"/>	C4	Boye and Kostuk, "Investigation of the effect of finite grating size on the performance of guided-mode resonance filters," <i>Applied Optics</i> , 39(21):3649-3653, 2000. /
<input type="checkbox"/>	C5	Brundrett, <i>et al.</i> , "Normal-incidence guided-mode resonant grating filters: design and experimental demonstration," <i>Optics Letters</i> , 23(9):700-702, 1998. /
<input type="checkbox"/>	C6	Chen, "Excitation of higher order modes in optical fibers with parabolic index profile," <i>Applied Optics</i> , 27(11):2353-2356, 1988. /
<input type="checkbox"/>	C7	Collings and Caruso, "Biosensors: recent advances," <i>Reports on Progress in Physics</i> , 60:1397-1445, 1997. /
<input checked="" type="checkbox"/>	C8	Cunningham, <i>Introduction to Bioanalytical Sensors</i> , John Wiley and Sons, 1998. /

25088156.1

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

Form PTO-1449 (modified)

Atty. Docket No.  
UTSL:058US/MTGSerial No.  
09/707,435

List of Patents and Publications for Applicant's



Applicant  
Debra D. Wawro *et al.*

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date:  
November 6, 2000Group:  
2817U.S. Patent Documents  
See Page 1Foreign Patent Documents  
See Page 1Other Art  
See Page 1

## Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C9	Cush, <i>et al.</i> , "The resonant mirror: a novel optical biosensor for direct sensing of biomolecular interactions Part I: Principle of operation and associated instrumentation," <i>Biosensors and Bioelectronics</i> , 8:347-353, 1993.
	C10	De Maria, <i>et al.</i> , "Fiber-optic sensor based on surface plasmon interrogation," <i>Sensors and Actuators B</i> , 12:221-223, 1993.
	C11	Ferguson and Walt, "Optical fibers make sense of chemicals," <i>Photonics Spectra</i> , 108-114, 1997.
	C12	Furlong, <i>et al.</i> , "A fundamental approach for biosensor characterization," Proceedings of Sensors Expo, Helmers Publishing, 353-356, 1996.
	C13	Furlong, <i>et al.</i> , "Fundamental system for biosensor characterization: application to surface plasmon resonance (SPR)," presented at Chemical, biochemical and environmental fiber sensors VIII, Denver, CO, 1996.
	C14	Gale, <i>et al.</i> , "Zero-order diffractive microstructures for security applications," Proceedings SPIE on Optical Security and Anti-counterfeiting systems, 1210:83-89, 1990.
	C15	Gaylord and Moharam, "Analysis and applications of optical diffraction by gratings," <i>Proc. IEEE</i> , 73(5):894-937, 1985.
	C16	Goldberg, "Genetic algorithms in search, optimization and machine learning," Addison-Wesley, Reading, MA, 1989.
	C17	Golden, <i>et al.</i> , "An evanescent wave biosensor- Part II: Fluorescent signal acquisition from tapered optic probes," <i>IEEE Transactions on Biomedical Engineering</i> , 41:585-591, 1994.
	C18	Homola and Slavik, "Fibre-optic sensor based on surface plasmon resonance," <i>Electronics Letters</i> , 32:480-482, 1996.
	C19	Jin, <i>et al.</i> , "Limitation of absorption-based fiber optic gas sensors by coherent reflections," <i>Applied Optics</i> , 36:6251-6255, 1997.
	C20	Johns, <i>et al.</i> , "Computational and in vivo investigation of optical reflectance from human brain to assist neurosurgery," <i>Journal of Biomedical Optics</i> , 3:437-445, 1998.
	C21	Johnson and Abushagur, "Microgenetic-algorithm optimization methods applied to dielectric gratings," <i>J. Opt. Soc. Am.</i> , 12(5):1152-1160, 1995.

25088156.1

EXAMINER:

DATE CONSIDERED:

10/28/02

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

INFORMATION DISCLOSURE STATEMENT — PTO-1449 (MODIFIED)

Form PTO-1449 (modified)

Atty. Docket No.  
UTSL:058US/MTGSerial No.  
09/707,435

List of Patents and Publications for Applicant's

Applicant  
Debra D. Wawro *et al.*

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date:  
November 6, 2000Group:  
2817U.S. Patent Documents  
See Page 1Foreign Patent Documents  
See Page 1Other Art  
See Page 1

## Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
<i>K</i>	C22	Jorgenson and Yee, "A fiber-optic chemical sensor based on surface plasmon resonance," <i>Sensors and Actuators B</i> , 22:213-220, 1993.
	C23	Jung, "Surface Plasmon Resonance Fiber Optic Sensors," Proceedings of the 3rd Pacific NW Fiber Optic Sensor Workshop, Troutdale, OR; 2-8, 1997.
	C24	Kersey, "A review of recent developments in fiber optic sensor technology," <i>Optical Fiber Technology</i> , 2:291-317, 1996.
	C25	Li <i>et al.</i> , "Optical scanning extrinsic Fabry-Perot interferometer for absolute microdisplacement measurement," <i>Applied Optics</i> , 36(34):8858-8861, 1997.
	C26	Liu, <i>et al.</i> , "High-efficiency guided-mode resonance filter," <i>Optics Letters</i> , 23(19):1556-1558, 1998
	C27	Luff, <i>et al.</i> , "Integrated Optical Mach-Zender Biosensor," <i>Journal of Lightwave Technology</i> , 16:583-592, 1998.
	C28	Magnusson and Wang, "New principle for optical filters," <i>Applied Physics Letters</i> , 61:1022-1024, 1992.
	C29	Magnusson, <i>et al.</i> , "Guided-mode resonance Brewster filter," <i>Optics Letters</i> , 23(8):612-614, 1998.
	C30	Melendez, <i>et al.</i> , "Biological Sensor Systems," presented at Sensors Expo Proceedings, 349-352, 1996.
	C31	Melendez, <i>et al.</i> , "Development of a surface plasmon resonance sensor for commercial applications," <i>Sensors and Actuators B</i> , 38-39:375-379, 1997.
	C32	Moharam, <i>et al.</i> , "Formulation for stable and efficient implementation of the rigorous coupled-wave analysis of binary gratings," <i>Journal of the Optical Society of America, Part A</i> , 12:1068-1076, 1995.
	C33	Moharam, <i>et al.</i> , "Stable implementation of the rigorous coupled-wave analysis for surface-relief gratings: enhanced transmittance matrix approach," <i>Journal of the Optical Society of America, Part A</i> , 12:1077-1086, 1995.
<i>K</i>	C34	Norton, <i>et al.</i> , "Coupled-mode theory of resonant-grating filters," <i>Journal of the Optical Society of America, Part A</i> , 14(3):629-639, 1997.

25088156.1

EXAMINER:

DATE CONSIDERED:

10/28/02

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

INFORMATION DISCLOSURE STATEMENT — PTO-1449 (MODIFIED)

Form PTO-1449 (modified)

Atty. Docket No.  
UTSL:058US/MTGSerial No.  
09/707,435

List of Patents and Publications for Applicant's

Applicant  
Debra D. Wawro *et al.*

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date:  
November 6, 2000Group:  
2817

U.S. Patent Documents

Foreign Patent Documents

Other Art

See Page 1

See Page 1

See Page 1

## Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
<input checked="" type="checkbox"/>	C35	Norton, <i>et al.</i> , "Experimental investigation of resonant-grating filter lineshapes in comparison with theoretical models," <i>Journal of the Optical Society of America, Part A</i> , 15(2):464-472, 1998.
<input type="checkbox"/>	C36	Ouellette, "Biosensors: Microelectronics marries biology," <i>The Industrial Physicist</i> , 11-12, 14, 1998.
<input type="checkbox"/>	C37	Peng and Morris, "Experimental demonstration of resonant anomalies in diffraction from two-dimensional gratings," <i>Optics Letters</i> , 21:549-551, 1996.
<input type="checkbox"/>	C38	Rosenblatt, <i>et al.</i> , "Resonant grating waveguide structures," <i>IEEE Journal of Quantum Electronics</i> , 33:2038-2059, 1997.
<input type="checkbox"/>	C39	Sethi, "Transducer aspects of biosensors," <i>Biosensors and Bioelectronics</i> , 9:243-264, 1994.
<input type="checkbox"/>	C40	Sharma and Rogers, "Biosensors," <i>Meas. Sci. Technol.</i> , 5:461-472, 1994.
<input type="checkbox"/>	C41	Shin <i>et al.</i> , "Thin-film optical filters with diffractive elements and waveguides," <i>Optical Engineering</i> , 37:2634-2646, 1998.
<input type="checkbox"/>	C42	Slavik, <i>et al.</i> , "Miniaturization of fiber optic surface plasmon resonance sensor," <i>Sensors and Actuators B</i> , 51:311-315, 1998.
<input type="checkbox"/>	C43	Slavik, <i>et al.</i> , "Novel surface plasmon resonance sensor based on single-mode optical fiber," Chemical, Biochemical and Environmental Sensors IX, Munich, Germany, 16-18 June, Proceedings of SPIE, 3105:325-331, 1997.
<input type="checkbox"/>	C44	Slavik, <i>et al.</i> , "Optical fiber surface plasmon resonance sensor for an aqueous environment," Proceedings of the International Conference on Optical Fiber Sensors, Williamsburg, VA, 436-439, 1997.
<input type="checkbox"/>	C45	Stone and Stulz, "FiEnd filters: passive multilayer thin-film optical filters deposited on fibre ends," <i>Electronic Letters</i> , 26(16):1290-1291, 1990.
<input type="checkbox"/>	C46	Sychugov, <i>et al.</i> , "Waveguide coupling gratings for high-sensitivity biochemical sensors," <i>Sensors and Actuators B</i> , 38-39:360-364, 1997.
<input type="checkbox"/>	C47	Tamir and Zhang, "Resonant scattering by multilayered dielectric gratings," <i>Journal of the Optical Society of America A</i> , 14:1607-1617, 1997.
<input checked="" type="checkbox"/>	C48	Tibuleac and Magnusson, "Reflection and transmission guided-mode resonance filters," <i>Journal of the Optical Society of America, Part A</i> , 14:1617-1626, 1997.

25088156.1

EXAMINER:

DATE CONSIDERED:

10/28/02

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

Form PTO-1449 (modified)

Atty. Docket No.  
UTSL:058US/MTGSerial No.  
09/707,435

List of Patents and Publications for Applicant's

## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Applicant  
Debra D. Wawro *et al.*Filing Date:  
November 6, 2000Group:  
2817

U.S. Patent Documents

See Page 1

Foreign Patent Documents

See Page 1

Other Art

See Page 1

## Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C49	Tibuleac, <i>et al.</i> , "Dielectric frequency selective structures incorporating waveguide gratings," IEEE Transactions on Microwave Theory and Techniques, 48(4):553-561, 2000.
	C50	Tibuleac, <i>et al.</i> , "Direct and inverse techniques of guided-mode resonance filter designs," IEEE Antennas and Propagation Society International Symposium, Conference Proceedings 4:2380-2383, 1997.
	C51	Tibuleac, <i>et al.</i> , "Resonant diffractive structures integrating waveguide gratings on optical fiber endfaces," Proceedings of IEEE Lasers and Electro Optics Society. Annual Meeting, San Francisco, CA, Nov. 1999, Conference Proceedings 2: 874-875, 1999.
	C52	Tugendhaft, <i>et al.</i> , "Reflection intensity optical fiber sensors for the mid-infrared," <i>Applied Optics</i> , 36:1297-1302, 1997.
	C53	Wang and Magnusson, "Design of waveguide-grating filters with symmetrical line shapes and low sidebands," <i>Optics Letters</i> , 19:919-921, 1994.
	C54	Wang and Magnusson, "Multi-layer Waveguide Grating Filters," <i>Applied Optics</i> , 34(14):2414-2420, 1995.
	C55	Wang and Magnusson, "Theory and applications of guided-mode resonance filters," <i>Applied Optics</i> , 32: 2606-2613, 1993.
	C56	Wang, <i>et al.</i> , "Self-referenced fiber optic sensor for microdisplacement measurement," <i>Optical Engineering</i> , 34(1):240-243, 1995

RECEIVED  
APR -9 2002  
TECHNICAL SERVICES 2800

25088156.1

EXAMINER:

DATE CONSIDERED:

10/28/02

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

INFORMATION DISCLOSURE STATEMENT — PTO-1449 (MODIFIED)

Form PTO-1449 (modified)

App. Docket No.

Serial No.

UTSL:058US/MTG

09/707,435

List of Patents and Publications for Applicant's

Applicant

Debra D. Wawro *et al.*

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date:

November 6, 2000

Group:

2817

U.S. Patent Documents

See Page 1

Foreign Patent Documents

See Page 1

Other Art

See Page 1



## U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.

## Foreign Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No

## Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C57	Tibuleac, "Characteristics of reflection and transmission waveguide-grating filters," Masters Thesis, University of Texas at Arlington, 1996.
	C58	Tibuleac, "Guided-mode resonance reflection and transmission filters in the optical and microwave spectral ranges," Dissertation, University of Texas at Arlington, December, 15, 1999.

25154830.1

EXAMINER:



DATE CONSIDERED:

10/29/02

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.